

Sustainable Urban Transport in Madrid (Spain)

Topic Transport and environment

Summary

The City of Madrid has developed different measures to move towards a more sustainable urban transport. The city has focused in different areas with different activities, from alternative fuels in buses to economic incentives for less polluting vehicles.

Case Study

Introduction

During the last years, the Madrid City Council and the EMT (Municipal Transport Company) has developed different actions to improve the air quality and the mobility in the city by implementing different measures in the transport area.

There are also different actions planned and to be developed in the following years.

Basic facts

In 2007, 22% of the fleet of the EMT uses clean fuels, and this percentage will increase in the following years. Madrid collaborates and is involved in different projects to develop alternative fuels, and is analysing different measures to achieve sustainable mobility.

Users and stakeholders

The Madrid City Council and the municipal transport company EMT are the main stakeholders of the initiatives, but also the citizens, taxi drivers, etc. are involved.

Implementation set-up

Throughout last years the EMT aimed to reduce the atmospheric pollution related to the emission of its rolling stock. Therefore, the EMT started to employ alternative energies in their buses.

Nowadays, there are more than 400 buses in the City of Madrid which use clean energies. The distribution of buses based on the type of fuel is:

- Diesel (Gasoil): 1568
- Biodiesel (Gasoil): 209
- Compressed Natural Gas (CNG): 208
- Hybrid (Gasoil / Electronic): 20
- Ethanol: 5

In April 2007, 5 new buses were presented running on bioethanol. This is produced from the alcohol of ethanol gas obtained from different plants as beetroot and corn. The use of bioethanol diminishes the emission of pollutants and reduced in 90% the CO₂ emissions. With this initiative, the EMT of Madrid is pioneer of an experience that, up to the date, only works in Stockholm.

<http://www.osmose-os.org/>

The EMT participates in the Fuel Cell Bus Project (Project CUTE/ECTOS), supported by the European Union (EU), which consists on the implementation of 30 electrical vehicles in ten European cities.

Other measure is the agreement between the City Council, the Trade-union Association of Taxis of Madrid and the Professional Federation of Taxis of Madrid in order to promote the renewable energies in this sector. In this pilot experience ten vehicles, of two different models, are driven with natural compressed gas, during a 12 month period. The fuel is provided by the City Council and as soon as the results are analysed, the City Council plans to extend the measure to private vehicles.

The Madrid Air Quality Strategy includes the implementation of Low Emission Zones (ZEB), now in study phase, which aim is to restrict the traffic of the most polluting vehicles.

On the other hand, the fiscal regulation foresees different deductions in the transport taxes for the least pollutant vehicles. The regulation stands out a reduction of 75% in the circulation tax for hybrid, electrical and gas with catalyst vehicles.

In addition, the City Council is adopting the Good Practices Code for Contracting. It establishes the criteria of purchase of private vehicles with internal combustion engine according to a comparative analysis of consumptions and emission based on an energy label, which will gather the information related to the fuel consumption and CO₂ emissions. In this respect the vehicles acquired by the City Council must be classified as type A, those that generate less CO₂ emissions must be prioritized. The systems of recommended fuel are: electrical or hybrid, with engine of biofuel, of hydrogen and of Natural Gas (liquefied or compressed).

Future prospects and conclusions

It is estimated that by 2008, 30 % of the municipal vehicles will include clean technologies.

Web links

www.munimadrid.es

www.emtmadrid.es

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